

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

Guideline Title: Experience ‘as a Drinking Water Operator’

PURPOSE

To explain for **new/upgrade** certificates:

- ✓ experience the ministry will consider as a substitution for ‘experience as an operator’ for the purpose of securing a Class II, III and IV certificate (O. Reg. 128/04, Schedule 2, section 9 (1) paragraph 2);
- ✓ experience the ministry may consider as ‘equivalent to’ experience as an operator for the purpose of securing a Class II, III and IV certificate (O. Reg. 128/04, Schedule 2, paragraph 5 of sections 5, 6, and 7);
- ✓ experience the ministry will consider as ‘equivalent to’ experience as an operator-in-training for the purpose of securing a Class I certificate (O. Reg. 128/04, Schedule 2, section 4, paragraph 5);
- ✓ how the ministry calculate hours of experience ‘as an operator’; when part time is considered full-time.

To explain for certificate **renewal**:

- ✓ experience the ministry will consider as ‘related to’ experience as an operator in relation to certificate renewal

CONTEXT

To qualify for a Class I, II, III or IV municipal residential operator’s certificate, in addition to education and training, a person must have specific years of experience as an operator in the type of municipal residential subsystem corresponding to the certificate for which the individual is applying.

Experience as an operator would be experience performing the functions that need to be performed by a certified operator. This includes ‘direct’ experience (i.e. ‘hands-on’- actually performing the function), or ‘indirect’ experience (i.e. directs and/or supervises operators on performing¹ operating functions)².

The functions that need to be performed by a certified drinking water operator include the following:

- control flow or pressure of drinking water in drinking water subsystems;

¹ ‘Indirect’ experience does NOT include providing advice to an operator on what chemicals to use or dose, owner or ministry policy, owner or ministry standards, regulation, etc. or setting operating policy or standards.

² To obtain a class I certificate, only hands-on experience is acceptable.

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

- disinfect or treat water using chemicals and/or through making adjustments to treatment equipment;
- monitor gauges, meters and control valves related to disinfection, treatment or distribution of drinking water;
- conducts water tests for the 24 operational parameters listed under O. Reg. 248/03 (e.g. testing for chlorine residual, turbidity, alkalinity, pH);
- start and stop pumps, engines and generators to control and adjust flow and treatment;
- open and close valves and gates, whether done manually or by remote control (a non-certified person can open and close valves for the purpose of ‘exercising’ a valve);
- add chlorine or other chemicals to the ‘distribution’ or ‘distribution and supply subsystem;
- perform ‘wet-taps’;
- flush hydrants;
- isolate watermains and reconnect isolated watermains;
- maintain logs (e.g. shift logs) or other forms of record-keeping related to treatment and distribution activities in the subsystem, make entries into such logs/records including meter and gauge readings.

Note: if the operator’s sole function is to conduct water tests, this will not be recognized as operating experience toward a certificate upgrade. Such experience will only be recognized toward a water quality analyst certificate.

<i>TO SECURE A NEW OR UPGRADE CERTIFICATE: SUBSTITUTION FOR EXPERIENCE AS AN OPERATOR</i>
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Note: there is no substitution of experience for a Class I certificate. To secure a Class I certificate, the person must have one year of experience as an operator-in-training or equivalent).

Context: O. Reg. 128/04 , Schedule 2, section 9 (1) 2 provides that to secure a Class II, III or IV drinking water certificate, applicants may be permitted to substitute experience as an operator with relevant different experience, specifically:

- experience as an operator in a different type of system,
- experience in a system other than as an operator, or
- other relevant qualifications for experience

Ministry Policy:

The following chart reflects the experience the ministry may consider a substitute for experience as an operator.

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

Substitutions will be recognized for up to 50% of the required operating experience in the type of subsystem reflecting the certificate for which the application is being made.

ORO experience is considered equivalent to OIC experience for the purpose of meeting the certificate experience requirement.

In order to fulfill the requirement to have specific years of OIC experience, the experience substitution must be OIC experience (or ORO experience).

Certificate being applied for	Experience Substitution
Water Treatment Certificate Upgrade	<p>The following will be accepted as a substitute for working as an operator for 1 year in a water treatment subsystem:</p> <ul style="list-style-type: none"> a. working as an operator for: <ul style="list-style-type: none"> ▪ 3 years in the following drinking water subsystems: distribution, distribution and supply, limited surface, and limited groundwater ▪ 3 years in a domestic wastewater treatment facility ▪ 3 years in a wastewater collection facility b. for persons holding a trade certificate: <ul style="list-style-type: none"> ▪ 2 years of experience performing the functions of that trade in any drinking water subsystem, or any domestic wastewater facility d. for persons not holding a trade certificate but who work as mechanical, electrical or maintenance personnel: <ul style="list-style-type: none"> ▪ 4 years of experience working in that role in any drinking water subsystem or domestic wastewater facility
Water Distribution Certificate Upgrade	<p>The following will be accepted as a substitute for working as an operator for 1 year in a drinking water distribution subsystem:</p> <ul style="list-style-type: none"> a. working as an operator for: <ul style="list-style-type: none"> ▪ 1 year in a distribution and supply subsystem ▪ 2 years in a drinking water treatment subsystem ▪ 3 years in a limited surface, and limited groundwater subsystem ▪ 3 years in a domestic wastewater treatment facility ▪ 3 years in a wastewater collection facility

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

	<p>b. for persons holding a trade certificate³:</p> <ul style="list-style-type: none"> ▪ 2 years of experience performing the functions of that trade in any drinking water subsystem, or any domestic wastewater facility <p>c. for persons not holding a trade certificate but who work as mechanical, electrical, or maintenance personnel:</p> <ul style="list-style-type: none"> ▪ 4 years of experience working in that role in any drinking water subsystem or domestic wastewater facility
Water Distribution and Supply Certificate Upgrade	<p>The following will be accepted as a substitute for working as an operator for 1 year in a drinking water distribution and supply subsystem:</p> <p>a. working as an operator for:</p> <ul style="list-style-type: none"> ▪ 1 years in a drinking water treatment subsystem ▪ 2 years working in a drinking water distribution subsystem ▪ 3 years in a limited surface, and limited groundwater subsystem ▪ 3 years in a domestic wastewater treatment facility ▪ 3 years in a wastewater collection facility <p>b. for persons holding a trade certificate⁴:</p> <ul style="list-style-type: none"> ▪ 2 years of experience performing the functions of that trade in any drinking water subsystem, or any domestic wastewater facility <p>c. for persons not holding a trade certificate but who work as mechanical, electrical, or maintenance personnel:</p> <ul style="list-style-type: none"> ▪ 4 years of experience working in that role in any drinking water subsystem or domestic wastewater facility

TO SECURE A NEW OR UPGRADE A CERTIFICATE: EQUIVALENT TO EXPERIENCE AS AN OIT OR AN OPERATOR

Context: O. Reg. 128/04 provides that to qualify for a Class I certificate, a person must have one year of experience as an OIT in that type of municipal residential subsystem, or experience the ‘Director’ considers equivalent to such OIT experience.

³ **Trade certificates** include the following: a journeyman or equivalent including a machinist, millwright, electrician, instrument mechanic, electronic specialist, pipe fitter, plumber, welder. This term also includes stationary engineers and certified engineer technicians or technologists.

⁴ **Trade certificates** include the following: a journeyman or equivalent including a machinist, millwright, electrician, instrument mechanic, electronic specialist, pipe fitter, plumber, welder. This term also includes stationary engineers and certified engineer technicians or technologists.

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

Similarly, O. Reg. 128/04 provides that in order to qualify for a Class II, III, and IV certificate an operator must have specific number of years of experience as an operator in that type of subsystem, or experience that the 'Director' considers equivalent to those qualifications.

Ministry policy:

The ministry will determine whether the experience is equivalent on a case by case basis. In making such determination, the ministry's assessment will include but not be limited to the following:

- The person must demonstrate that their work provides them with superior knowledge and expert skills in operating a drinking water subsystem
- The person must secure a letter of support from the overall responsible operator or a professional engineer stating that such person is capable of operating a drinking water subsystem of the type for which the application is being made

Examples of experience that might fit this description:

- Time spent by a professional engineer, technical staff employed by the municipality or operating authority, or external consultant designing, installing, repairing, inspecting, testing and optimizing drinking water treatment or distribution supply and equipment
- Time spent by a professional engineer, technical staff or external consultant teaching operators on drinking water treatment or distribution operating systems

TO SECURE A NEW OR UPGRADE A CERTIFICATE: HOW THE MINISTRY COUNTS EXPERIENCE – WHEN PART-TIME IS CONSIDERED FULL-TIME

Context: Some operators work part-time because the system does not require a full-time operator. Other operators work full-time but only part-time performing operating duties e.g. they also work for the roads department.

Ministry policy:

The ministry considers 1,800 hours per year to equal full-time employment.

The ministry does not recognize more than one year for one particular type of experience. For example if a person is employed as a full-time operator, and works overtime, they will only receive one year of experience.

A person employed as a full-time operator will be credited one year experience for each year worked, for each type of subsystem for which they are responsible. Examples:

- a person employed full-time as an operator to operate the drinking water treatment subsystem(s) will receive one year of credit toward their drinking water treatment certificate.

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

- a person employed full-time as an operator to operate the drinking water treatment subsystems and the distribution subsystems, will receive one year of experience toward their drinking water treatment certificate and one year of experience toward their distribution certificate.
- a person employed full-time as an operator to operator the drinking water treatment subsystems, the distribution subsystems, the wastewater treatment facilities, and the wastewater collection facilities, may receive one year of experience to each of these licences/certificates, if they are fully responsible for all four systems for the full year, and are working in each system to the full level possible for that system. This would have to be documented and verified in the experience section in the upgrade application form. If an operator is only responsible for a subsystem for a portion of their day, only that time can be credited for the upgrade certificate.

Generally, full experience for more than one type of subsystem would only be granted for small, operationally simple systems. Consideration may also be given to water treatment operators who are responsible for pumping stations, re-chlorination or reservoirs, and therefore require a water distribution certificate. Other situations may be considered and must be fully documented in the experience section of the application form.

A person employed part-time as an operator will be credited the percent of full-time employment they work as an operator.

A person serving as an on-call operator will only be credited experience for the time they actually perform operating functions. No experience will be credited for time spent 'standing by'.

An operator who works part-time as an operator but is responsible for the facility on a full-time basis will receive one-year experience credit for each year worked, for each different type of facility for which they are responsible. For example, if such operator is responsible for both the drinking water treatment and the distribution subsystems, they will receive one year experience credit toward their drinking water treatment certificate, and one year experience credit toward their distribution certificate. This exception is limited to subsystems requiring a small number of operators, who need to be available on a full-time basis but only need to work on a part-time basis to operate the subsystem. This **does not** include operators who rotate through varying subsystems through the week/month/year as part of their employment. The operator **must be fully** responsible for **both** subsystems at all times to the full level possible for those systems in order to receive the full year of experience towards both certificate upgrades. This must be supported on the operator's upgrade application form in the experience section.

Minimum number of years: For operators who spend the vast majority of their time performing non-operating functions it may take many years to acquire the necessary operating experience. Thus, the ministry will credit one year experience for five consecutive years performing

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

operating functions on a regular basis throughout each year. This policy is retroactive to January 1, 2000.

<i>To RENEW A CERTIFICATE: <u>RELATED</u> EXPERIENCE</i>

Context: Under O. Reg. 128/04, one of the qualifying criteria for certificate renewal is that the operator has at least three months experience in the previous 36 months of working as an operator in a subsystem, or of performing functions that the ‘Director’ considers related to those of an operator.

Ministry Policy:

The ministry will accept the following as related experience toward the renewal of the five types of drinking water operator certificates:

- a. working as an operator in:
 - one of the five types of drinking water subsystems
 - a wastewater treatment or collection facility
- b. working as an electrical, mechanical, or maintenance employee in:
 - one of the five types of drinking water subsystems
 - a wastewater treatment or collection facility
- c. working as a supervisor or manager in a drinking water subsystem or wastewater facility
- d. time spent training or educating drinking water or wastewater operators on all aspects of system operations and/or equipment maintenance, including educators and technical experts
- e. time spent by a professional engineer, or technical staff employed by the municipality or operating authority, designing, installing, repairing, inspecting, testing and optimizing drinking water treatment or distribution equipment
- f. time spent by drinking and wastewater consultants, employed by a recognized consulting company, designing, operating, installing, repairing, testing, optimizing or maintaining drinking or wastewater systems
- g. time spent in the position of a public health inspector or a drinking water inspector
- h. other as approved by the ‘Director’, not limited to the following examples, working as a laboratory technician, or in another capacity, conducting operational drinking water tests as defined by O. Reg. 248/04, if it can be demonstrated that the person gained knowledge of operating procedures during this time

Note: a person serving as an on-call operator will only be credited experience for the time they actually perform operating functions. No experience will be credited for time spent ‘standing by’.

GUIDELINE NO:3.4
Drinking Water Operator/Water Quality Analyst Certification
Revised December 2007
Approved December 2007

PROCESS TO HAVE EXPERIENCE OTHER THAN ‘EXPERIENCE AS AN OPERATOR’ CONSIDERED

A person applying for a certificate of a particular type and class determines whether they have the necessary experience ‘as an operator’ in a subsystem of the same type (and class where applicable).

If a person feels they do not meet this qualifying requirement, and wish to have ‘different’ experience substituted, or be considered as having ‘equivalent’ experience, they should make such request in writing at the time they submit their certificate application form, and provide detail on their different or equivalent experience. The ministry may ask for additional information. See the ministry’s “Guide to Completing...Forms” for further detail.